

WHAT IS CLAIMED IS:

1. A method of controlling a transmission rate, comprising:
  - determining whether a pause has been received;
  - determining whether a maximum of an inter-frame spacing (IFS) has been reached if the pause has been received; and
  - increasing the inter-frame spacing by a value if the maximum of the inter-frame spacing has not been reached to reduce the transmission rate.
2. The method according to claim 1, wherein the value is based on a selection from the group consisting of a pause time in a pause frame, a frequency of pause frames, and a proximity of a current inter-frame spacing to the maximum or a minimum of the inter-frame spacing.
3. The method according to claim 1, wherein the value is in byte time units.
4. A method of training a transmission rate, comprising:
  - determining whether a pause has been received;
  - determining whether a minimum of an inter-frame spacing (IFS) has been reached if the pause has not been received; and
  - decreasing the inter-frame spacing by a value if the minimum of the inter-frame spacing has not been reached to train the transmission rate.

1           5.       The method according to claim 4, further including waiting for an event to occur  
2 prior to determining whether the pause has been received.

1           6.       The method according to claim 5, wherein the event is a packet count.

1           7.       The method according to claim 5, wherein the event is a poll time.

1           8.       The method according to claim 4, wherein the value is in byte time units.

1           9.       An input/output controller, comprising:  
2                   a receiver circuit to determine whether a pause has been received; and  
3                   a logic circuit adapted to determine whether a maximum of an inter-frame spacing  
4 (IFS) has been reached if the pause has been received, and to increase the inter-frame  
5 spacing by a value if the maximum of the inter-frame spacing has not been reached to  
6 reduce a transmission rate.

1           10.      The input/output controller according to claim 9, wherein the value is based on a  
2 selection from the group consisting of a pause time in a pause frame, a frequency of pause  
3 frames, and a proximity of a current inter-frame spacing to the maximum or a minimum of the  
4 inter-frame spacing.

1           11.      The input/output controller according to claim 9, wherein the value is in byte time  
2 units.

12. An input/output controller, comprising:  
a receiver circuit to determine whether a pause has been received; and  
a logic circuit adapted to determine whether a minimum of an inter-frame spacing (IFS) has been reached if the pause has not been received, and to decrease the inter-frame spacing by a value if the minimum of the inter-frame spacing has not been reached to train a transmission rate.

13. The input/output controller according to claim 12, wherein the logic circuit is further adapted to wait for an event to occur prior to determining whether the pause has been received by the receiver circuit.

14. The input/output controller according to claim 13, wherein the event is a packet count.

15. The input/output controller according to claim 13, wherein the event is a poll time.

16. The input/output controller according to claim 12, wherein the value is in byte time units.

17. A program code storage device, comprising:  
a machine-readable storage medium; and

3 machine-readable program code, stored on the machine-readable storage medium,  
4 having instructions to  
5 determine whether a pause has been received,  
6 determine whether a maximum of an inter-frame spacing (IFS) has been  
7 reached if the pause has been received, and  
8 increase the inter-frame spacing by a value if the maximum of the inter-  
9 frame spacing has not been reached to reduce a transmission rate.

1 18. The program code storage device according to claim 17, wherein the value is  
2 based on a selection from the group consisting of a pause time in a pause frame, a frequency of  
3 pause frames, and a proximity of a current inter-frame spacing to the maximum or a minimum of  
4 the inter-frame spacing.

1 19. The program code storage device according to claim 17, wherein the value is in  
2 byte time units.

1 20. A program code storage device, comprising:  
2 a machine-readable storage medium; and  
3 machine-readable program code, stored on the machine-readable storage medium,  
4 having instructions to  
5 determine whether a pause has been received,  
6 determine whether a minimum of an inter-frame spacing (IFS) has been  
7 reached if the pause has not been received, and

8                   decrease the inter-frame spacing by a value if the minimum of the inter-  
9                   frame spacing has not been reached to train a transmission rate.

1           21.    The program code storage device according to claim 20, wherein the machine-  
2   readable program code further includes instructions to wait for an event to occur prior to  
3   determining whether the pause has been received.

1           22.    The program code storage device according to claim 21, wherein the event is a  
2   packet count.

1           23.    The program code storage device according to claim 21, wherein the event is a  
2   poll time.

1           24.    The program code storage device according to claim 20, wherein the value is in  
2   byte time units.

1           25.    A network system, comprising:  
2                   a controller system to determine whether a pause has been received, to determine  
3                   whether a maximum of an inter-frame spacing (IFS) has been reached if the pause has  
4                   been received, and to increase the inter-frame spacing by a value if the maximum of the  
5                   inter-frame spacing has not been reached to reduce a transmission rate; and  
6                   a trainer system to determine whether the pause has been received, to determine  
7                   whether a minimum of the inter-frame spacing has been reached if the pause has not been

8 received, and to decrease the inter-frame spacing by a second value if the minimum of the  
9 inter-frame spacing has not been reached to train the transmission rate.

1 26. The network system according to claim 25, wherein the value is in byte time  
2 units.

1 27. The network system according to claim 25, wherein the second value is in byte  
2 time units.

1 28. The network system according to claim 25, wherein the value is based on a  
2 selection from the group consisting of a pause time in a pause frame, a frequency of pause  
3 frames, and a proximity of a current inter-frame spacing to the maximum or the minimum of the  
4 inter-frame spacing.